



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
PALM BEACH GARDENS REGULATORY OFFICE
4400 PGA BOULEVARD, SUITE 500
PALM BEACH GARDENS, FLORIDA 33410

REPLY TO
ATTENTION OF

April 18, 2003

Regulatory Division
South Permits Branch
Palm Beach Gardens Regulatory Office
200000380(IP-PLC)

Lois A. Edwards, Permit Specialist
Coastal Technology Corporation
3625 20 Street
Vero Beach, Florida 32960

Dear Ms. Edwards:

This letter refers to Department of the Army (DA) permit application number 200000380(IP-PLC) to place 1.5 million cubic yards of fill over approximately 1.9 miles of beach, between DNR Monuments R-116 and R-126. The project consists of 1.9 miles along the southeast Florida coast within Palm Beach County between Sloan's Curve and the Ambassador South II Condominium including Phipps Ocean Park and the Palm Beach Par 3 Golf Club, located within the Town of Palm Beach, Florida, in Sections 11, 14, and 23, Township 44 South, Range 43 East.

This correspondence provides the U.S. Army Corps of Engineers (Corps) comments based on our review of the Draft Final Supplemental Environmental Impact Statement, submitted on January 29, 2003. Enclosed is a list of items that need to be modified or corrected within the document. Additional items that need to be addressed may be identified by the Corps, the applicant, or the consultant, during the revision process. The remainder of this letter addresses general issues that need to be reworked or further addressed in the document based on the Corps review and comments received.

The information contained within the document indicates that the area in which the beach nourishment is proposed has been relatively stable for the past several years. The discussion on project need must more fully address the need for the project with respect to the historic stability of the existing beach.

The project purpose reasonably describes the need to mitigate the long-term erosion impacts of Lake Worth Inlet and the armored coastline north of the Project Area. The project purpose also includes the need to provide and maintain storm protection to upland improvements, structures, and infrastructure, however the hardbottom existing within the project area seems to be providing this protection. The need includes restoration for marine turtle nesting habitat, however, there is no documentation that nesting rates have declined within the project area and according to the State Marine Turtle Protection Program, studies have shown that, "after beach nourishment projects, the turtles didn't go any further from the waterline."

The discussion of the alternatives needs to include historical information on the status of the beach in addition to the modeling figures provided. This section should address known historic physical changes in beach width over time within the narrative in addition to the Genesis models provided.

An additional alternative should be intensively analyzed and modeled that involves no fill north of the center of Phipps Ocean Park (midway between monument 119 and 120), with a short T-head groin at the northern limit of fill to keep the fill from moving to the hard bottom to the north. The discussion of this alternative will include the acreage that would be avoided of the total 3.1 acres of hardbottom impact in the applicant preferred alternative. This alternative should also include a small (2-4 T-head groins) groin field immediately south of Sloan's curve, with the northern groin longer than the southern of the set.

The model run with the assumption that no nearshore hardbottom is present, within the no-action alternative should be eliminated. As documented by the Miami Geological Society in "The Anastasia Formation in Palm Beach and Martin Counties, Florida", "The outcrops [at Phipps Park] extend southward from the park for 8km (5 mi) as rocky ledges in the surf zone." The graph and associated discussion pertaining to Assumption 1 (no nearshore hardbottom) is misleading, as it is known that hardbottom exists in this area. Knowledge of the presence of hardbottom within the project area is essential to the evaluation of the project within the Supplemental Environmental Impact Statement. If you have information that contradicts this information it has not been made available to the Corps.

The alternative analysis evaluates one particular groin field configuration. The analysis fails to consider any other types of groin structures or configurations, such as high, low, long, short, permeable, impermeable, fixed, or adjustable. Short T head groins have proven successful in other areas of Palm Beach County such as Mid-Town and Ocean Ridge and need to be evaluated more in depth in the alternative analysis. Specifically, a series of transitional "T" head groins should be considered in this alternative analysis. In addition, location of some other short T head groins should be evaluated in areas north of Phipps Ocean Park.

The grain size analysis and the overfill ratio calculations within the document compare the borrow areas to the historic native beach grain size, indicating a mean grain size of 0.34mm. Current data indicates that the mean grain size of the material on the beach between DNR Monuments R-118 and R-124, within the project area, is actually 0.52mm. Extending beyond the project area, from R-115 to R-127, the mean grain size is only reduced to 0.49mm. Using these figures will provide a more accurate overfill ratio. The USACE Shore Protection Manual Vol. I, page 5-10 states, "Where fill is to be placed on a natural beach that has been relatively stable (i.e. exhibiting a steady rate of change or dynamic stability, or only slowly receding) the size characteristics of the native material can be used to evaluate the suitability of potential borrow material." Since the FSEIS demonstrates that the beach within the project area has been relatively stable and is primarily suffering from the long term impacts of Lake Worth Inlet and beach protection structures to the north, and according to recommended guidelines within the USACE Shore Protection Manual, the calculations for overfill ratios need to be performed using the existing mean grain size of 0.49mm. Two separate overfill ratios should be calculated, as the borrow areas consist of two different mean grain sizes, 0.32mm and 0.22mm. Using these new calculations, make any necessary changes to the anticipated interval between renourishment activities, overfill ratios, and mean grain size, throughout the document.

If you have any questions or need further clarification, please contact Ms. Penny Cutt at the letterhead address, by telephone at 561-472-3505, by fax at 561-626-6971, or by e-mail at Penny.Cutt@saj02.usace.army.mil. You may also reach me by telephone at 561-472-3532 or by e-mail at John.F.Studt@saj02.usace.army.mil.

Sincerely,

John F. Studt
Chief, South Permits Branch

Enclosures